

**BELKIN®**

# Surf POWERLINE NETWORKING ADAPTER

**User Manual**

F5D4077uk

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# INTRODUCTION

Thank you for purchasing the Surf Powerline Networking Adapter (the Adapter). Most people don't enjoy buying long and expensive Ethernet cables or pulling the cables from one place to another, but the Adapter offers one of the easiest ways to enjoy home or small-business networking. Users can now experience a total network solution with the Adapter. The Surf Powerline Networking Adapter operates on the HomePlug® Powerline AV standard, providing up to 200Mbps\* bandwidth over home AC wiring. Since the home power lines are the most pervasive medium in households with multiple outlets in every room, the Adapter allows multiple home desktop and notebook computers to be networked to share an Internet connection, printers, and files, stream video, and play games without any additional wiring. The advanced signal processing is capable of maintaining coverage throughout the entire house, even across different phase rings.

These Adapters also use xtendnet technology to ensure the most robust powerline network in the market. Each additional Belkin Surf Powerline or Play Powerline Adapter that is plugged in is capable of repeating the data signal for maximum coverage of your home.

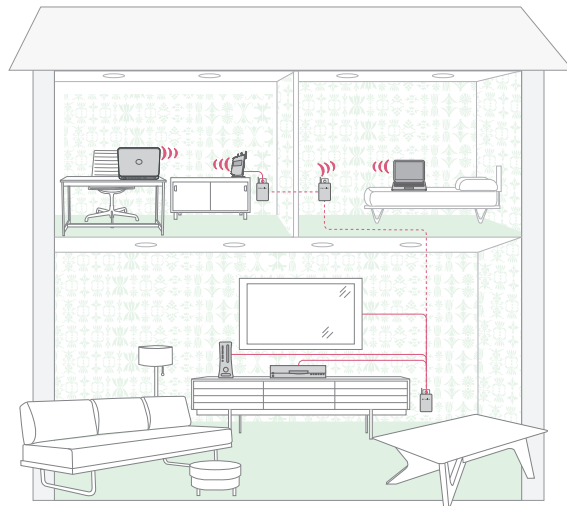
The installation of the Adapter only requires that a 10/100Mbps Ethernet port is available on your device. This makes the Surf Powerline Networking Adapter compatible with any device, including Mac, Windows, and UNIX machines. Note that you need at least two adapters to create a powerline network.

For security, all HomePlug devices are equipped with 128-bit AES encryption. The private home power grid plus encryption makes HomePlug significantly more secure than competing technologies.

The Surf Powerline Networking Adapter provides the best solution for no-new-wires home networking. With easy plug-and-play installation, and the reliability of HomePlug Ethernet's products, the Surf Powerline Networking Adapter is the best solution for high-speed networking.

## Features

- Up to 200Mbps\* bandwidth over standard home power lines
- HomePlug signal easily passes through circuit breaker
- 128-bit AES encryption ensures data security
- Encryption completed by hardware, without sacrifice to bandwidth
- Uses IEEE 802.3 computer interface
- Plug-and-play installation
- xtendnet™ feature for a robust powerline network
- HomePlug Powerline AV-compliant
- Coexistence with HomePlug 1.0 and 1.0 Turbo networks



## Product Specifications

Computer Interface: IEEE 802.3/802.3u

Operating Temperature: 32–104 degrees F (0–40 degrees C)

Storage Temperature: -4–176 degrees F (-20–80 degrees C)

Humidity: Max. 5%–90% (non-condensing)

\*The standard transmission rate—200Mbps—is the physical data rate. Actual data throughput will be lower.



# INTRODUCTION

## Power LED

Solid Green	Power on
Off	Power off
Blinking Green	Encryption setting up
Solid Green	Encryption setup successful
Double Flash	Fail in encryption

## Powerline Link LED

Blinking	Powerline data transmitting or receiving
Color Green	Link rate excellent: greater than 80Mbps
Color Amber	Link rate low: less than 80Mbps
Off	No activity

## Ethernet Link LED

Solid Green	10/100/Mbps port linked
Off	No Ethernet link

## System Requirements

- At Least 2 HomePlug AV Devices
- Available Ethernet port on each computer or network device
- Available power outlet
- Standard home powerline wiring
- CD-ROM drive

## Package Contents

- Surf Powerline Networking Adapter(s)
- HomePlug User Manual (on CD)
- CD-ROM
- CAT5/RJ45 Ethernet Cable(s)

# INSTALLING AND SETTING UP THE ADAPTERS

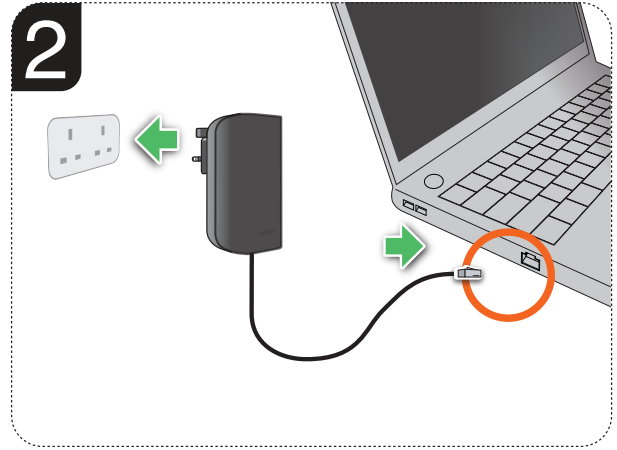
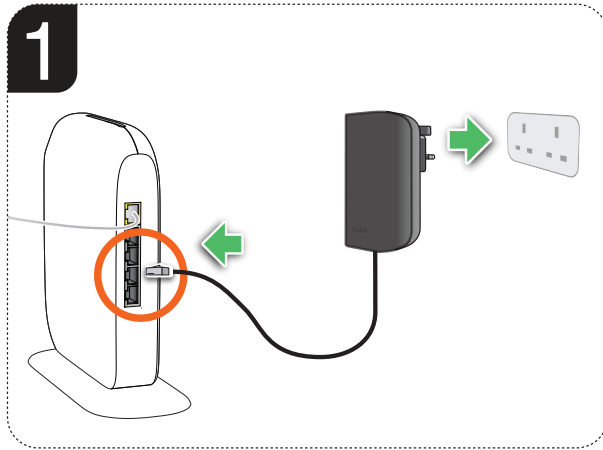
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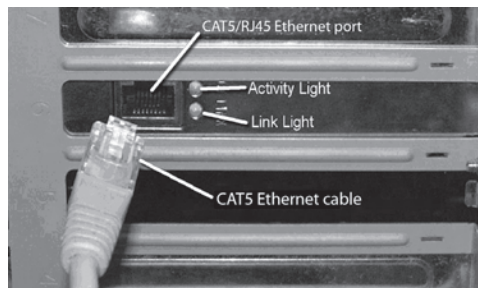


# INSTALLING AND SETTING UP THE ADAPTERS

## Overview

Installation of the Surf Powerline Networking Adapter takes only seconds and does not require setting up long wires throughout the house. Simply plug the units directly into any available wall outlet and connect to any device with an Ethernet port. Users have the option to randomly change the security password for their powerline network.

## Hardware Setup



1. Plug your network cable into the device's RJ45 network adapter port.
2. Plug the other end of your network cable into the RJ45 port located at the back of the Adapter.
3. Plug the power cable or wall adapter into the power connector at the back of the Adapter.
4. Insert the power plug of your power cable or wall adapter directly into a power outlet in the wall.

**NOTE: Do not plug the device into a UPS or power strip with surge protection as they may filter the powerline signal.**

5. Repeat this process for the second Adapter.



# CONFIGURATION

## Overview

The Adapter uses 128-bit AES encryption to block access from the outside. By default, the protection is enabled. However, it is recommended that you change the default network password with the “Encryption” button located on the units.



## Changing the Network Password

1. With both Adapters plugged into the wall, press the “Encryption” button on both units for 10 seconds. The password on these Adapters has now been changed to a random value.
2. Next, press the “Encryption” button on one unit for more than 1 second, but less than three seconds.
3. Within two minutes, press the “Encryption” button on the second unit for more than 1 second, but less than three seconds.
4. The new network password has now been saved to the second unit. The password will not be lost, even if the Adapters are unplugged from the wall.

### Adding Another Adapter to the Network

1. If the default network password has been changed, a new Adapter will have to load the new password before it can join the network. Press the “Encryption” button on the new unit for 10 seconds. The password on this Adapter has now been changed to a random value.
2. Press the “Encryption” button on an encrypted unit for more than 1 second, but less than three seconds.
3. Within two minutes, press the “Encryption” button on the new unit for more than 1 second, but less than three seconds.
4. The new device has now been loaded with the network password and added to the current powerline network.

### Resetting to Factory Defaults

Using a pointed object, press and hold the “Reset” button for one second to restore defaults. This procedure resets the network password to the default out-of-box value.

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